Supplementary Table 3.
Results of instrumental variable analyses for recurrence-free survival and overall survival, in which the instrumental variable was defined as the proportion of TIVA at each of 47 prefectures

<table>
<thead>
<tr>
<th></th>
<th>Recurrence-free survival</th>
<th>Overall survival</th>
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<tbody>
<tr>
<td></td>
<td>Hazard ratio</td>
<td>95% confidence interval</td>
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<tr>
<td>Type of anesthesia</td>
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<tr>
<td>Volatile anesthesia</td>
<td>ref</td>
<td>ref</td>
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<tr>
<td>Total intravenous anesthesia</td>
<td>0.91</td>
<td>0.76–0.94</td>
</tr>
<tr>
<td>Age (years)</td>
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<tr>
<td>≤59</td>
<td>ref</td>
<td>ref</td>
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<tr>
<td>60–69</td>
<td>1.20</td>
<td>1.15–1.25</td>
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<tr>
<td>70–79</td>
<td>1.48</td>
<td>1.42–1.53</td>
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<tr>
<td>≥80</td>
<td>2.11</td>
<td>2.01–2.21</td>
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<tr>
<td>Sex, male</td>
<td>1.30</td>
<td>1.26–1.34</td>
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<tr>
<td>Body mass index, kg/m²</td>
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<tr>
<td>&lt;18.5</td>
<td>1.28</td>
<td>1.24–1.33</td>
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<tr>
<td>18.5–24.9</td>
<td>ref</td>
<td>ref</td>
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<tr>
<td>25.0–29.9</td>
<td>0.93</td>
<td>0.90–0.96</td>
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<tr>
<td>30.0–34.9</td>
<td>1.00</td>
<td>0.91–1.09</td>
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<tr>
<td>≥35.0</td>
<td>0.94</td>
<td>0.76–1.17</td>
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<td>Charlson comorbidity index</td>
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<td>2</td>
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<td>3</td>
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<td>≥4</td>
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<td>Cancer stage</td>
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<td>0 or I</td>
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<td>II</td>
<td>1.56</td>
<td>1.50–1.63</td>
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<tr>
<td>III</td>
<td>2.02</td>
<td>1.94–2.10</td>
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<tr>
<td>IV</td>
<td>4.35</td>
<td>4.15–4.55</td>
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<td>Preoperative adjuvant therapy</td>
<td>1.60</td>
<td>1.52–1.67</td>
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<td>2.93–3.12</td>
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<td>Preoperative morphine or oxycodone</td>
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<td>1.07–1.14</td>
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<td>Year of surgery</td>
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<tr>
<td>2010 (Jul–Dec)</td>
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<tr>
<td>2011 (Jan–Dec)</td>
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<tr>
<td>2012 (Jan–Dec)</td>
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<td>2013 (Jan–Dec)</td>
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<td>2014 (Jan–Dec)</td>
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<td>2015 (Jan–Dec)</td>
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<td>2016 (Jan–Dec)</td>
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<td>2017 (Jan–Dec)</td>
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<tr>
<td>2018 (Jan–Mar)</td>
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<tr>
<td>Barthel index</td>
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<td>0–95</td>
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<td>Hospital volume</td>
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<tr>
<td>Low (&lt;125)</td>
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<tr>
<td>Medium (125–245)</td>
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<td>High (&gt;245)</td>
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<tr>
<td>At least one postoperative complication</td>
<td>1.43</td>
<td>1.37–1.49</td>
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